

nests and bird nests living undoubtedly on the loose hairs, feathers and dermal exuviae. It is his belief, based primarily on certain striking facts of morphology, that the *Mallophaga* are degenerate descendants of the Psocidae (see Psyche, v. 9, pp. 339 ff., 1902).

New North American Cossidae.

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In anticipation of a revision of North American Cossidae, on which we are at present engaged, and in which we propose to figure all the species, we append descriptions of several new species which have recently been received by us. The types of all these are contained in Dr. Barnes' Collection.

Givira minuta, n. sp.

♂.—Front, white; antennae, slightly bipectinate, shaft white. pectinations brown; thorax gray, sprinkled with black, patagia and meta-thoracic tuft reddish-brown; abdomen smoky gray, with small black lateral tufts on third segment and prominent reddish-brown anal tuft; primaries light ochreous-brown, shaded with fuscous beyond cell, and with a broad creamy costal margin; on costa at base of wing is an indistinct smoky brown spot, followed outwardly by a large semi-triangular spot of same color, extending from costa to second anal vein, the apex situated at a point just below median vein, costal angle sharp, lower angle rather blunt and preceded by slight reddish scaling; a row of brown spots along costa of which those situated near apex are largest; a smoky brown patch in cell and a somewhat larger one situated between the base of second cubital and the second anal vein; on inner margin directly below this patch a minute circular patch of similar color, portion between this and base of wings containing several fine transverse striations; beyond these two patches a distinct whitish shade extending nearly to anal angle; an oblong reddish bar at end of cell, defined slightly by lighter; subterminal space from costa to vein Cu. with a series of large irregular smoky brown blotches, that between veins M₁ and M₂ being the smallest and followed by a white patch extending to margin of wing; some indistinct terminal black scaling, followed by a fine terminal line of a light ochre color; fringes checkered brown and white with dark basal line; secondaries dark smoky brown, lighter on costa, with very faint traces of scattered striations and a light ochre terminal line; fringes checkered, with dark basal line. Beneath dark smoky brown with an ochreous terminal line to both wings and the markings of upper side

faintly reproduced; costa of primaries lighter, with a series of dark dots; fringes as above. Expanse, 17 mm.

Habitat: Cochise Co., Ariz. (June 8-15) 1 ♂.

This species presents a great superficial resemblance to *Eugiva carisca* Schaus, from Jalapa, Mex. Through the kindness of Dr. Dyar we have received a water color drawing of this latter species, and a careful comparison has proved it distinct. It may be most easily separated by the white teminal patch, the larger size of the patch below cubitus, and the much darker color of the secondaries.

***Givira marga*, n. sp.**

♂.—Antennae pectinate, brownish, with white scales on shaft; front grayish white; thorax and patagia brownish gray, thickly sprinkled with white, abdomen darker. Primaries gray, with an indistinct darker shade beyond the cell, extending to inner margin; covered with fine black strigae, especially noticeable in outer third, where they form several irregular bands across the wing; basal portion of wing free from markings except along costa which is dotted with black; a prominent white bar at end of cell; extremity of veins spotted with black. Secondaries smoky brown, lighter along costa with faint traces of reticulation and a dotted marginal line. Beneath primaries as above, lighter along inner margin, markings more indistinct; secondaries lighter, reticulation in outer half prominent; basal half of costa marked with black dashes. Expanse, 30 mm.

Habitat:—Santa Catalina Islands, Calif. Described from 2 ♂♂.

This species resembles *G. anna* Dyar, from which it may be distinguished by its darker ground color and the lack of white on basal half of inner margin of primaries.

***Givira lotta*, n. sp.**

♂.—Antennae pectinate, brownish, with white shaft; front and palpi grayish; thorax and patagia smoky brown, strongly sprinkled with gray; abdomen with traces of tufts on basal segments, dark brown; primaries, ground color gray, obscured with dark brown at base, the dark shading extending obliquely to a point on costa beyond cell; costa gray, spotted with black; a faint white dot at apex of cell, and a white marginal line on basal half of inner margin; outer third of wing pure gray; faint traces of reticulation over whole wing; the extremity of veins bordered by a double row of black dots, which extend outward across the fringes; these latter gray, bordered outwardly slightly with white. Secondaries dark smoky brown with

traces of reticulation and darker checkering on fringes, which show traces of white at anal angle. Beneath, primaries, smoky, silvery gray along inner margin; costa, gray with black spots; traces of strigae over whole wing; fringes as above; secondary, pale gray, lighter along costa, which is striped with black; some traces of reticulation give a powdery appearance to wing; fringes dark brown. Expanse, 29 mm.

The faint dot at end of cell, combined with the dark brown markings is sufficient to distinguish this species from *anna* Dyar, and it differs from *marga* B. & McD. in possessing the white line on basal half of inner margin.

Habitat:—Yavapai Co., Ariz. (Buchholz), Aug. 16-23. 2 ♂♂.

Hypopta palmata n. sp.

♂—Palpi porrect, extending beyond front, antennae strongly bipectinate, shaft white; collar and thorax largely white, sprinkled with black and gray scaling; abdomen light brown, rather thickly haired at base and with slight blackish anal tuft; primaries white, shaded strongly with dark smoky brown along inner margin, below the cell from base of Cu₂ to anal angle, and beyond the cell along veins M₁ and M₂, the dark scales extending slightly upward towards apex; veins, especially the branches of median and cubitus, outlined in dark, the dark scaling broadening out at extremity of veins to form small triangular patches along outer margin, the intervening white patches presenting a fan-like appearance; costal margin and cell remain entirely white, as well as a long oval patch below the cell between the cubitus and first anal, and a sharply pointed shaft extending between the two anal veins to their point of junction; fringes dusky, composed of black and white hairs; secondaries light smoky brown; veins slightly darker; fringes whitish. Beneath gray, lighter at base with veins sharply outlined in darker. Expanse, 22-26 mm.

Habitat:—Gila Co., Ariz. 2 ♂♂.

Genus **HAMILCARA** n. gen. (Type *atra* n. spec.)

Palpi minute, upturned; thoracic vestiture scaly; antennae of ♂ bipectinate in basal half only; frenulum well developed; primaries narrow with large areole, vein R₁ from cell, R₂ from areole, R₄ and R₅ stalked from a point with R₃, M₁ from just below areole, M₂ and M₃ from a point, Cu from angle of cell, 1st and 2nd anal not connected; secondaries with S. C. free, R and M₁ almost parallel from base of wing to margin, with perpendicular discocellular bar, M₂ and M₃ from

angle of cell, Cu 1 from behind "cellula intrusa," which is present on both wings.

This genus is closest to the European genus *Phragmataecia* Newm., but an examination of the type (*arundinis*) showed several points of difference in the venation of primaries; in *arundinis* vein R1 is from areole, which is much broader than in *atra* and connected basally with the "cellula intrusa;" the abdomen is also produced for a far greater length beyond hind wings, and the thoracic vestiture is entirely hairy.

It also differs considerably in venation from *Zeuzera* (type *pyrina* L.), the most readily distinguished feature being the lack of the cross-bar on secondaries between subcostal and radius.

H. atra n. spec.

♂.—General color dark smoky gray; thorax sprinkled with lighter scales and with blackish markings on hinder portion; abdomen gray; primaries thickly covered with fine black striations, forming a series of irregular transverse lines across wings; in basal portion these are closer together, causing a darker appearance; a narrow black bar at end of cell; secondaries smoky, lighter at anal angle and inner margin; remainder of wing very finely reticulated with black. Beneath as above; all black markings obscure except along costa of primaries for two-thirds its length. Expanse, 35 mm.

Santa Catalina Mts., Ariz. 1 ♂, Coll. Barnes.

Hamilcara gilensis n. spec.

♂.—Thorax gray, mixed with black, especially on metathoracic segment; base of legs thickly covered with long gray hairs; abdomen with short silky gray squamation; primaries gray, shaded with light brown in basal portion of submedian fold and with numerous fine black transverse striae, which in the outer portion of wing tend to form irregular bands; from costal margin, at one-third from base, a black bar of variable width, inwardly oblique, extends across cell to cubital vein; a narrow black bar at end of cell extends upward to costa, both bars being parallel; fringes dusky, checkered with black; secondaries pure white, bordered by dusky fringes, along the margin of which a few faint reticulations are discernable. Beneath, primaries, smoky gray, lighter along costa and inner margin; a series of dark spots on costal margin; striations of upper side faintly reproduced in outer portion of wing; secondaries as above. Expanse, 34-40 mm.

Habitat:—Gila. Co., Ariz. 3 ♂ ♂.